

Primary energy

Consumption*

Million tonnes oil equivalent	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Change 2002 over 2001	2002 share of total
USA	1993.5	2035.9	2073.2	2119.1	2189.8	2206.7	2220.9	2258.9	2314.3	2250.9	2293.0	1.9%	24.4%
Canada	257.4	264.1	272.4	275.2	285.7	285.5	282.6	284.1	289.7	285.9	288.7	1.0%	3.1%
Mexico	107.4	105.8	112.2	109.9	114.2	120.5	126.6	130.1	134.3	133.7	133.7	♦	1.4%
Total North America	2358.3	2405.8	2457.8	2504.2	2589.7	2612.7	2630.1	2673.1	2738.3	2670.5	2715.4	1.7%	28.9%
Argentina	46.5	48.7	50.6	52.4	53.9	55.9	57.9	57.3	58.8	57.8	53.5	-7.4%	0.6%
Brazil	126.5	130.4	135.0	142.3	151.0	160.5	166.8	171.1	176.4	174.5	177.5	1.7%	1.9%
Chile	14.4	15.1	16.4	17.7	19.1	22.1	21.6	22.3	23.8	23.3	23.9	2.3%	0.3%
Colombia	23.0	24.7	25.7	26.4	27.7	27.9	27.3	25.0	24.9	26.9	25.2	-6.5%	0.3%
Ecuador	5.8	6.2	6.8	6.4	7.2	8.1	8.2	7.7	7.7	7.7	7.7	0.8%	0.1%
Peru	8.4	9.3	10.1	10.9	11.1	10.9	11.3	11.7	11.9	11.7	11.8	0.9%	0.1%
Venezuela	49.8	51.1	53.4	56.4	58.0	61.1	63.8	59.8	61.9	62.1	61.5	-0.9%	0.7%
Other S. & Cent. America	64.0	66.5	70.5	72.5	76.6	79.4	82.3	83.9	85.0	84.7	87.1	2.8%	0.9%
Total S. & Cent. America	338.4	352.0	368.5	385.0	404.6	425.9	439.2	438.8	450.4	448.7	448.2	-0.1%	4.8%
Austria	27.7	28.2	27.9	28.5	29.1	30.3	30.9	31.6	31.5	32.2	32.7	1.7%	0.3%
Azerbaijan	19.1	16.6	15.8	16.1	12.6	11.4	12.6	12.8	11.4	11.0	11.2	1.9%	0.1%
Belarus	37.1	28.6	25.3	23.6	21.4	23.5	22.2	21.0	21.5	20.6	21.0	1.8%	0.2%
Belgium & Luxembourg	56.6	54.8	54.7	56.7	59.1	60.3	63.0	64.1	66.4	64.0	63.8	-0.4%	0.7%
Bulgaria	20.3	21.7	20.8	22.3	23.3	20.7	20.7	18.0	17.8	18.1	18.7	2.9%	0.2%
Czech Republic	40.5	39.1	39.3	41.3	43.0	41.7	39.9	38.5	40.0	41.7	41.5	-0.5%	0.4%
Denmark	17.9	19.2	20.7	20.2	24.1	21.7	20.6	19.9	18.8	18.6	18.6	♦	0.2%
Finland	23.3	23.1	24.3	23.1	24.5	25.1	25.6	25.7	26.0	26.4	26.6	0.6%	0.3%
France	233.7	233.5	229.5	235.7	244.7	241.0	247.2	251.3	254.8	258.2	258.0	-0.1%	2.7%
Germany	336.2	333.6	331.1	333.1	344.0	337.8	334.5	328.5	330.5	335.7	329.4	-1.9%	3.5%
Greece	25.1	25.2	25.9	26.7	27.0	27.2	28.6	30.1	31.8	33.4	34.2	2.7%	0.4%
Hungary	23.3	22.9	23.4	23.6	24.2	23.8	23.8	23.7	23.0	24.0	23.6	-1.7%	0.3%
Iceland	1.7	1.8	1.8	1.9	1.9	2.1	2.2	2.3	2.4	2.5	2.6	4.5%	♦
Republic of Ireland	9.2	9.5	10.0	10.2	10.8	11.6	12.4	13.2	13.9	14.6	14.4	-1.5%	0.2%
Italy	158.3	154.9	154.7	162.4	162.4	163.9	168.5	173.7	176.4	176.0	174.8	-0.7%	1.9%
Kazakhstan	74.1	65.6	58.2	51.2	45.9	40.7	39.1	35.0	40.6	40.2	38.9	-3.1%	0.4%
Lithuania	11.0	8.3	7.3	8.2	9.0	8.6	9.2	7.8	7.0	8.1	8.7	8.1%	0.1%
Netherlands	78.1	79.6	79.5	82.7	85.2	84.7	84.5	83.2	86.5	88.5	89.0	0.5%	0.9%
Norway	38.2	39.5	38.4	40.7	37.1	39.3	40.4	41.5	45.9	41.0	42.9	4.5%	0.5%
Poland	95.2	97.0	96.2	96.4	100.8	98.6	94.1	91.1	88.4	88.6	87.1	-1.7%	0.9%
Portugal	17.0	17.3	17.9	19.0	19.4	20.4	22.4	22.8	23.3	25.0	24.1	-3.6%	0.3%
Romania	48.5	47.3	45.4	48.6	48.2	45.2	41.3	36.9	37.0	37.3	38.3	2.8%	0.4%
Russian Federation	820.8	770.4	702.8	668.1	647.2	610.9	611.4	621.1	636.0	638.7	640.2	0.2%	6.8%
Slovakia	18.1	17.1	16.6	17.3	17.5	17.1	17.6	17.5	18.1	18.6	19.4	4.2%	0.2%
Spain	95.1	93.9	96.9	100.5	104.8	111.7	118.1	122.7	129.2	133.0	134.5	1.1%	1.4%
Sweden	50.5	49.9	49.8	50.1	48.8	50.4	51.6	51.6	48.6	52.1	48.5	-6.9%	0.5%
Switzerland	28.3	28.1	29.4	27.9	27.1	28.9	29.1	30.1	29.4	31.5	29.6	-6.1%	0.3%
Turkey	52.5	57.8	56.2	60.1	67.7	69.6	70.6	68.9	73.7	70.8	68.6	-3.0%	0.7%
Turkmenistan	13.6	11.6	12.9	11.1	12.0	12.1	12.0	12.7	13.6	14.0	14.5	3.8%	0.2%
Ukraine	218.3	184.3	157.7	147.8	141.6	138.9	133.7	136.5	136.7	135.9	133.8	-1.5%	1.4%
United Kingdom	214.5	216.6	213.6	214.4	224.8	220.4	224.0	223.3	224.0	226.0	220.3	-2.5%	2.3%
Uzbekistan	47.0	48.3	47.8	47.6	49.0	50.1	51.8	53.6	51.2	54.8	56.5	3.1%	0.6%
Other Europe & Eurasia	80.2	69.1	61.1	60.9	63.9	65.6	67.2	63.1	63.0	64.2	63.5	-1.1%	0.7%
Total Europe & Eurasia	3031.0	2914.4	2792.9	2778.0	2802.1	2755.3	2770.8	2773.8	2818.4	2845.3	2829.5	-0.6%	30.1%
Iran	75.7	78.3	85.2	93.3	98.5	103.7	105.2	113.4	115.0	114.1	116.2	1.8%	1.2%
Kuwait	7.9	9.9	11.6	14.8	14.6	15.3	17.7	18.1	19.0	19.1	18.6	-2.7%	0.2%
Qatar	12.2	13.0	13.0	13.1	13.4	14.2	14.5	13.7	10.9	11.6	11.7	0.6%	0.1%
Saudi Arabia	85.8	88.1	92.0	90.1	93.7	96.1	101.0	102.5	107.2	111.0	114.2	2.8%	1.2%
United Arab Emirates	33.8	34.9	37.7	40.3	42.4	43.9	41.8	41.8	40.5	46.6	47.8	2.6%	0.5%
Other Middle East	64.8	69.3	72.9	77.6	80.3	85.2	88.0	89.4	92.9	94.1	94.6	0.4%	1.0%
Total Middle East	280.2	293.5	312.4	329.2	342.9	358.4	368.2	378.9	385.5	396.5	403.1	1.6%	4.3%
Algeria	28.4	26.5	26.9	28.0	28.0	26.5	27.5	27.9	28.6	32.9	34.0	3.4%	0.4%
Egypt	33.3	33.7	34.4	36.4	38.4	39.9	41.9	44.7	47.6	49.2	50.3	2.3%	0.5%
South Africa	87.2	89.8	95.3	100.5	106.0	109.4	108.8	107.9	108.4	107.0	109.2	2.0%	1.2%
Other Africa	75.0	76.9	79.2	81.2	83.6	85.4	88.2	91.6	93.3	95.6	97.5	2.0%	1.0%
Total Africa	223.9	226.9	235.8	246.1	256.0	261.2	266.4	272.1	277.9	284.7	291.0	2.2%	3.1%
Australia	88.5	88.6	93.9	95.2	100.8	103.1	106.4	108.6	109.4	112.6	112.9	0.3%	1.2%
Bangladesh	7.2	7.8	8.4	9.9	10.0	10.6	11.0	11.0	12.8	13.6	14.1	3.8%	0.1%
China	722.2	758.4	811.8	893.6	917.4	930.4	864.3	766.2	765.7	833.6	997.8	19.7%	10.6%
China Hong Kong SAR	14.4	15.6	14.1	15.1	15.0	15.1	15.4	15.6	15.6	18.9	20.6	9.0%	0.2%
India	216.4	222.4	235.5	252.3	270.0	282.4	290.3	298.1	312.0	314.2	325.1	3.4%	3.5%
Indonesia	61.4	64.9	67.9	73.5	79.4	84.0	80.0	89.1	95.3	101.0	102.4	1.4%	1.1%
Japan	455.2	461.8	479.8	493.8	503.6	507.4	502.2	508.7	515.9	514.8	509.4	-1.1%	5.4%
Malaysia	26.9	29.6	32.3	33.1	37.7	37.7	37.4	38.3	45.7	48.1	51.8	7.7%	0.6%
New Zealand	15.6	16.0	16.5	16.9	17.2	17.3	16.8	17.4	17.8	17.8	18.4	3.7%	0.2%
Pakistan	29.5	31.7	33.7	36.4	38.3	37.4	39.6	40.8	42.0	42.7	43.8	2.6%	0.5%
Philippines	15.8	16.5	17.5	19.6	21.1	22.6	22.9	22.7	22.6	22.7	22.3	-1.8%	0.2%
Singapore	25.7	28.1	32.0	33.3	31.6	33.8	34.7	32.9	34.8	37.6	37.1	-1.3%	0.4%
South Korea	114.4	125.4	135.5	148.6	163.8	179.6	165.5	180.5	191.1	195.9	205.8	5.0%	2.2%
Taiwan	55.1	57.9	62.3	65.7	68.9	72.9	77.5	81.1	85.6	86.8	89.3	2.9%	0.9%
Thailand	36.1	40.6	45.5	52.4	58.4	61.2	58.2	59.7	62.4	63.6	68.9	8.2%	0.7%
Other Asia Pacific	80.9	84.3	84.9	86.4	88.1	90.0	88.0	89.0	93.0	95.7	98.1	2.5%	1.0%
Total Asia Pacific	1965.3	2049.6	2171.6	2325.8	2421.3	2485.5	2410.2	2359.7	2421.7	2519.6	2717.8	7.9%	28.9%
TOTAL WORLD	8197.1	8242.2	8339.0	8568.3	8816.6	8899.0	8884.9	8896.4	9092.2	9165.3	9405.0	2.6%	100.0%
of which: European Union 15	1343.2	1339.3	1336.5	1363.3	1408.7	1406.5	1431.9	1441.7	1461.7	1483.7	1468.9	-1.0%	15.6%
OECD	4673.0	4740.2	4821.3	4931.2	5103.1	5147.7	5170.6	5243.6	5355.1	5314.0	5346.1	0.6%	56.8%
Former Soviet Union	1279.2	1164.8	1053.5	997.5	961.1	920.0	915.7	922.2	939.0	944.6	946.1	0.2%	10.1%
Other EMEs	2244.7	2337.1	2464.0	2639.6	2752.7	2831.3	2798.8	2730.4	2797.9	2906.7	3112.8	7.1%	33.1%

*In this Review, primary energy comprises commercially traded fuels only. Excluded, therefore, are fuels such as wood, peat and animal waste which, though important in many countries, are unreliably documented in terms of consumption statistics.

♦Less than 0.05%.

Primary energy

Consumption by fuel*

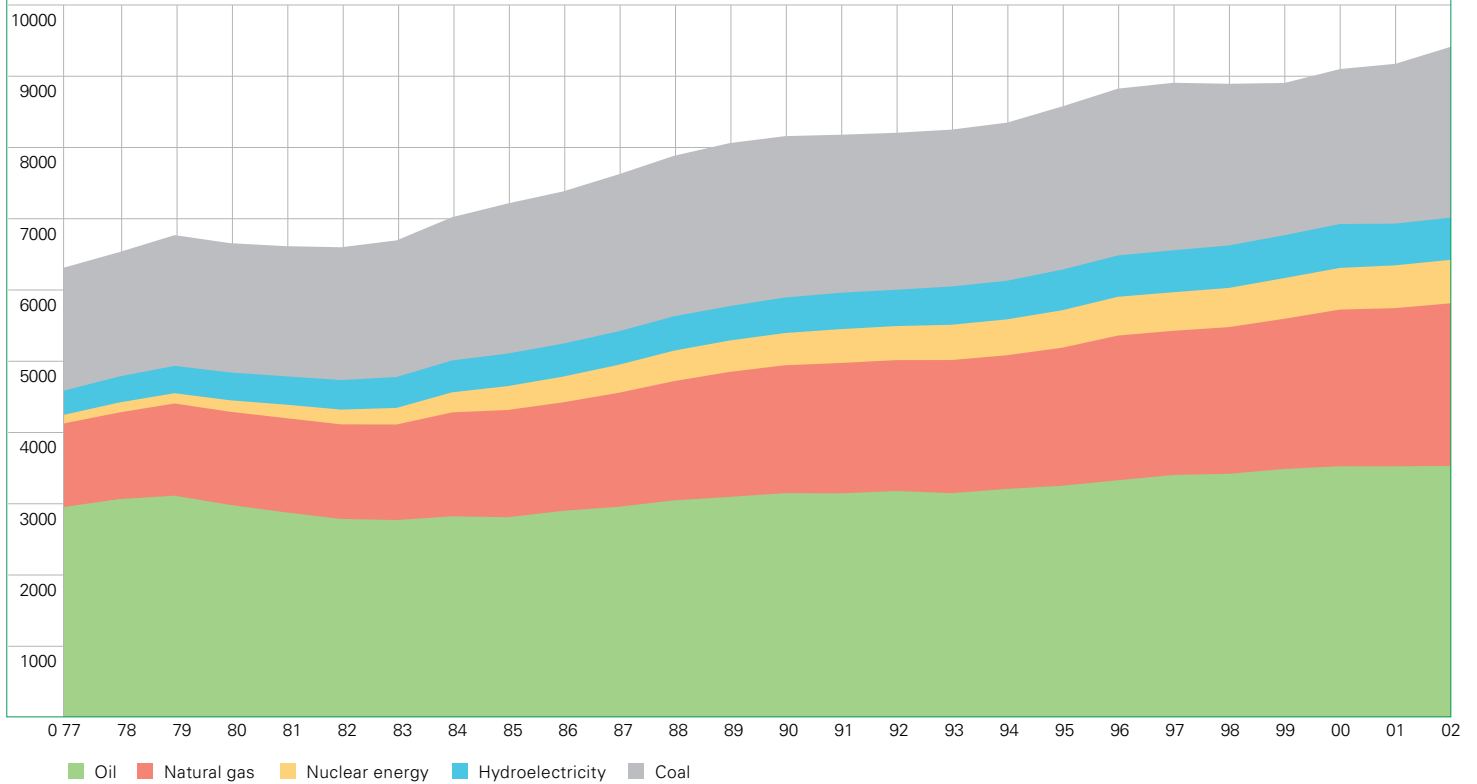
Million tonnes oil equivalent	2001						2002					
	Oil	Natural gas	Coal	Nuclear energy	Hydro-electricity	Total	Oil	Natural gas	Coal	Nuclear energy	Hydro-electricity	Total
USA	896.1	578.2	545.9	183.2	47.6	2250.9	894.3	600.7	553.8	185.8	58.2	2293.0
Canada	88.7	74.5	30.3	17.4	75.0	285.9	89.7	72.6	30.7	17.0	78.6	288.7
Mexico	83.4	35.1	6.8	2.0	6.4	133.7	80.9	37.9	7.0	2.2	5.6	133.7
Total North America	1068.2	687.8	583.0	202.6	129.0	2670.5	1064.9	711.2	591.5	205.0	142.4	2715.4
Argentina	19.0	28.1	0.7	1.6	8.4	57.8	16.8	27.2	0.6	1.3	7.6	53.5
Brazil	87.5	10.5	12.2	3.5	60.7	174.5	85.4	12.3	12.0	3.4	64.4	177.5
Chile	10.6	5.7	2.1	-	4.9	23.3	10.8	5.9	2.0	-	5.2	23.9
Colombia	11.1	5.5	3.3	-	7.1	26.9	10.0	5.5	2.0	-	7.6	25.2
Ecuador	5.9	0.1	-	-	1.6	7.7	5.9	0.1	-	-	1.7	7.7
Peru	7.0	0.3	0.4	-	4.0	11.7	7.0	0.4	0.4	-	4.1	11.8
Venezuela	22.2	26.2	†	-	13.7	62.1	22.9	24.6	†	-	14.0	61.5
Other S. & Cent. America	55.5	11.6	0.8	-	16.8	84.7	56.0	12.2	0.8	-	18.1	87.1
Total S. & Cent. America	218.8	88.0	19.5	5.1	117.2	448.7	214.8	88.2	17.8	4.7	122.7	448.2
Austria	12.8	7.0	2.9	-	9.5	32.2	13.0	7.3	3.5	-	8.9	32.7
Azerbaijan	3.7	7.0	†	-	0.3	11.0	3.6	7.1	†	-	0.5	11.2
Belarus	5.9	14.5	0.3	-	†	20.6	5.8	14.9	0.3	-	†	21.0
Belgium & Luxembourg	32.2	13.2	7.6	10.5	0.6	64.0	32.9	13.4	7.3	9.7	0.5	63.8
Bulgaria	4.0	2.7	6.9	4.1	0.4	18.1	4.2	2.6	6.8	4.6	0.5	18.7
Czech Republic	8.3	8.0	21.4	3.3	0.6	41.7	8.2	8.0	20.4	4.2	0.6	41.5
Denmark	9.8	4.6	4.2	-	†	18.6	9.8	4.6	4.2	-	†	18.6
Finland	10.5	3.7	4.0	5.2	3.1	26.4	10.9	3.7	4.5	5.1	2.5	26.6
France	95.5	37.7	11.6	95.5	17.9	258.2	92.8	38.5	12.7	98.9	15.0	258.0
Germany	131.6	74.6	85.0	38.7	5.8	335.7	127.2	74.3	84.6	37.3	5.9	329.4
Greece	21.7	1.7	9.3	-	0.6	33.4	21.8	1.8	9.9	-	0.8	34.2
Hungary	6.7	10.7	3.4	3.2	†	24.0	6.4	10.7	3.3	3.2	†	23.6
Iceland	0.9	-	0.1	-	1.5	2.5	0.9	-	0.1	-	1.6	2.6
Republic of Ireland	9.0	3.6	1.9	-	0.2	14.6	8.7	3.7	1.8	-	0.3	14.4
Italy	92.8	57.3	13.7	-	12.2	176.0	92.9	57.2	13.8	-	10.9	174.8
Kazakhstan	6.8	9.1	22.5	-	1.8	40.2	6.5	8.7	21.7	-	2.0	38.9
Lithuania	2.7	2.5	0.1	2.6	0.2	8.1	2.7	2.6	0.1	3.2	0.2	8.7
Netherlands	43.9	35.2	8.5	0.9	†	88.5	43.8	35.4	8.9	0.9	†	89.0
Norway	9.7	3.4	0.6	-	27.4	41.0	9.4	3.5	0.5	-	29.4	42.9
Poland	19.2	10.4	58.0	-	1.0	88.6	19.7	10.1	56.4	-	0.9	87.1
Portugal	14.6	2.3	4.9	-	3.3	25.0	14.9	2.7	5.0	-	1.5	24.1
Romania	10.6	14.9	7.2	1.2	3.4	37.3	10.9	15.6	6.9	1.3	3.6	38.3
Russian Federation	122.3	335.4	110.2	31.0	39.8	638.7	122.9	349.6	98.5	32.0	37.2	640.2
Slovakia	3.2	6.2	4.1	3.9	1.2	18.6	3.3	6.9	3.9	4.1	1.2	19.4
Spain	72.7	16.4	19.5	14.4	9.9	133.0	73.5	18.8	21.9	14.3	6.1	134.5
Sweden	15.2	0.6	2.0	16.3	17.9	52.1	15.0	0.7	2.2	15.6	15.1	48.5
Switzerland	13.1	2.5	0.1	6.1	9.7	31.5	12.4	2.5	0.1	6.2	8.3	29.6
Turkey	30.5	14.4	20.4	-	5.4	70.8	29.9	15.6	18.1	-	5.0	68.6
Turkmenistan	2.4	11.6	-	-	-	14.0	2.6	11.9	-	-	-	14.5
Ukraine	12.7	63.8	39.4	17.2	2.7	135.9	12.9	62.8	38.3	17.7	2.2	133.8
United Kingdom	77.3	86.7	40.3	20.4	1.5	226.0	77.2	85.1	36.5	19.9	1.7	220.3
Uzbekistan	6.5	46.0	1.1	-	1.2	54.8	6.6	47.2	1.0	-	1.6	56.5
Other Europe & Eurasia	21.7	13.0	12.1	1.6	15.8	64.2	21.9	12.0	12.9	1.8	14.9	63.5
Total Europe & Eurasia	930.5	920.7	523.3	276.1	194.9	2845.3	925.2	939.5	506.1	280.0	178.9	2829.5
Iran	54.0	58.5	0.8	-	0.8	114.1	53.2	61.1	0.8	-	1.1	116.2
Kuwait	10.5	8.6	-	-	-	19.1	10.7	7.8	-	-	-	18.6
Qatar	1.4	10.2	-	-	-	11.6	2.0	9.6	-	-	-	11.7
Saudi Arabia	62.7	48.3	-	-	-	111.0	63.4	50.8	-	-	-	114.2
United Arab Emirates	12.3	34.3	-	-	-	46.6	12.4	35.4	-	-	-	47.8
Other Middle East	65.5	20.7	7.2	-	0.7	94.1	65.7	20.4	7.6	-	0.8	94.6
Total Middle East	206.4	180.6	8.0	-	1.5	396.5	207.4	185.1	8.4	-	1.9	403.1
Algeria	9.1	23.3	0.5	-	†	32.9	9.9	23.7	0.5	-	†	34.0
Egypt	26.1	19.3	0.8	-	3.0	49.2	26.1	20.4	0.8	-	3.1	50.3
South Africa	23.0	-	80.7	2.6	0.8	107.0	23.6	-	81.8	2.9	0.9	109.2
Other Africa	58.3	16.1	7.2	-	14.1	95.6	59.0	16.6	7.5	-	14.5	97.5
Total Africa	116.5	58.7	89.2	2.6	17.9	284.7	118.6	60.7	90.6	2.9	18.5	291.0
Australia	38.1	21.4	49.3	-	3.8	112.6	38.0	21.6	49.5	-	3.8	112.9
Bangladesh	3.3	9.7	0.4	-	0.2	13.6	3.4	10.1	0.4	-	0.2	14.1
China	232.2	25.0	518.7	4.0	53.7	833.6	245.7	27.0	663.4	5.9	55.8	997.8
China Hong Kong SAR	11.7	2.2	4.9	-	-	18.9	13.1	2.1	5.4	-	-	20.6
India	96.7	24.5	172.5	4.3	16.3	314.2	97.7	25.4	180.8	4.4	16.9	325.1
Indonesia	52.1	30.1	16.7	-	2.1	101.0	51.2	31.3	17.8	-	2.1	102.4
Japan	247.5	71.1	103.0	72.7	20.4	514.8	242.6	69.7	105.3	71.3	20.5	509.4
Malaysia	20.6	23.2	2.6	-	1.7	48.1	22.5	24.3	3.3	-	1.7	51.8
New Zealand	6.4	5.2	1.3	-	4.8	17.8	6.8	5.0	1.3	-	5.4	18.4
Pakistan	18.4	17.9	2.1	0.2	4.1	42.7	17.9	18.8	2.1	0.4	4.6	43.8
Philippines	16.5	0.1	4.5	-	1.6	22.7	15.6	1.6	3.5	-	1.6	22.3
Singapore	36.4	1.1	-	-	-	37.6	35.5	1.6	-	-	-	37.1
South Korea	103.1	20.8	45.7	25.4	0.9	195.9	105.0	23.6	49.1	27.0	1.2	205.8
Taiwan	39.2	6.7	30.8	8.0	2.1	86.8	38.8	7.7	32.5	9.0	1.4	89.3
Thailand	33.1	20.3	8.8	-	1.4	63.6	35.3	23.3	8.6	-	1.6	68.9
Other Asia Pacific	21.4	4.4	58.8	-	11.1	95.7	22.5	4.2	60.5	-	10.9	98.1
Total Asia Pacific	976.7	283.7	1020.1	114.6	124.2	2519.6	991.6	297.3	1183.5	118.0	127.7	2717.8
TOTAL WORLD	3517.1	2219.5	2243.1	601.0	584.7	9165.3	3522.5	2282.0	2397.9	610.6	592.1	9405.0
of which: European Union 15	639.6	344.6	215.4	201.9	82.5	1483.7	634.4	347.2	216.8	201.7	69.2	1468.9
OECD	2194.5	1206.5	1105.8	519.1	288.2	5314.0	2181.9	1235.6	1116.3	522.7	289.5	5346.1
Former Soviet Union	167.4	497.8	174.1	51.2	54.1	944.6	168.3	511.9	160.5	53.4	52.0	946.1
Other EMEs	1155.3	515.3	962.9	30.7	242.5	2906.7	1172.3	534.6	1121.0	34.2	250.6	3112.8

*In this Review, primary energy comprises commercially traded fuels only. Excluded, therefore, are fuels such as wood, peat and animal waste which, though important in many countries, are unreliably documented in terms of consumption statistics.

†Less than 0.05.

World consumption

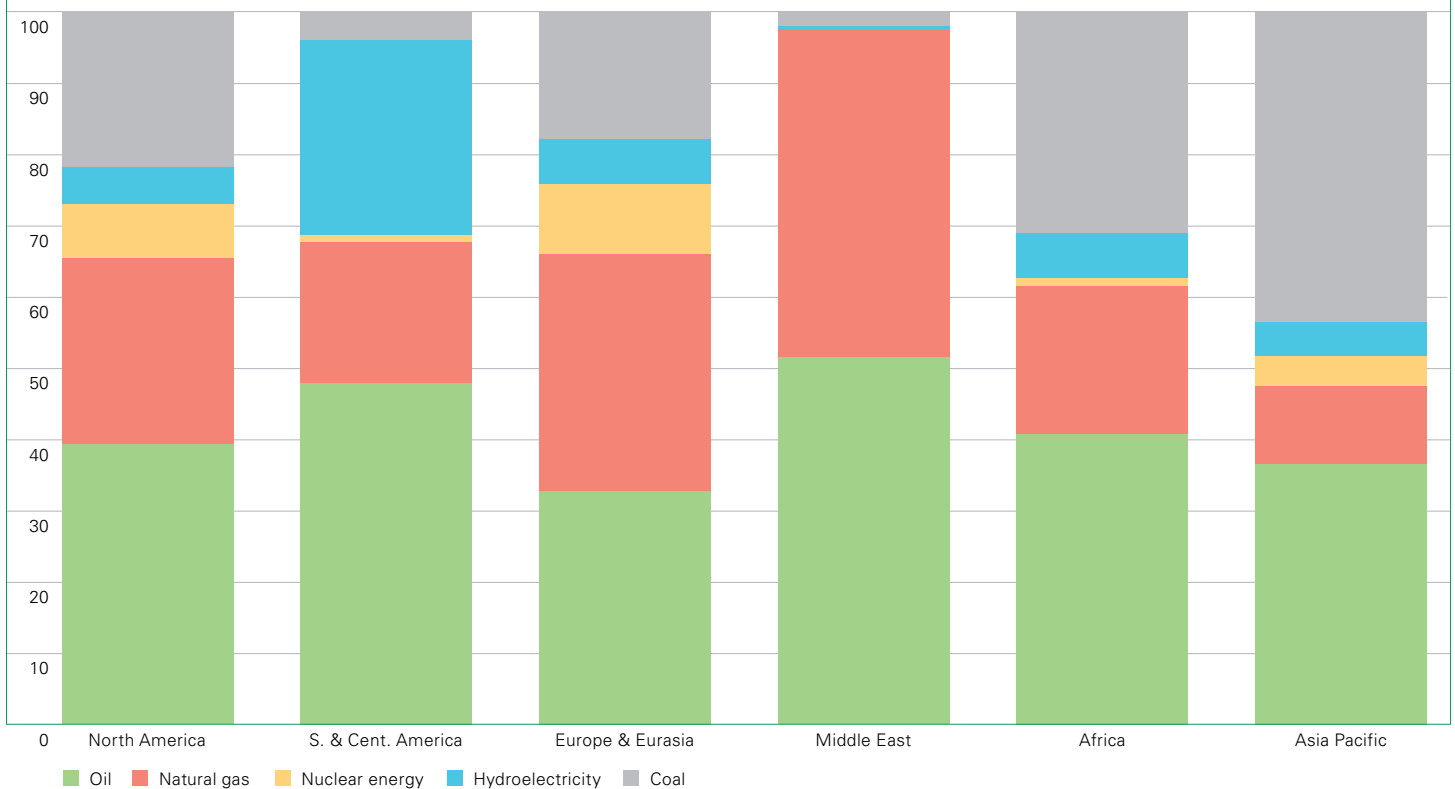
Million tonnes oil equivalent



World primary energy consumption grew by a relatively strong 2.6% in 2002, largely as the result of a near 20% increase in reported Chinese energy consumption. Excluding China, consumption growth was less than 1%. Coal increased its share of the overall energy market for the second year running.

Regional consumption pattern 2002

Percentage

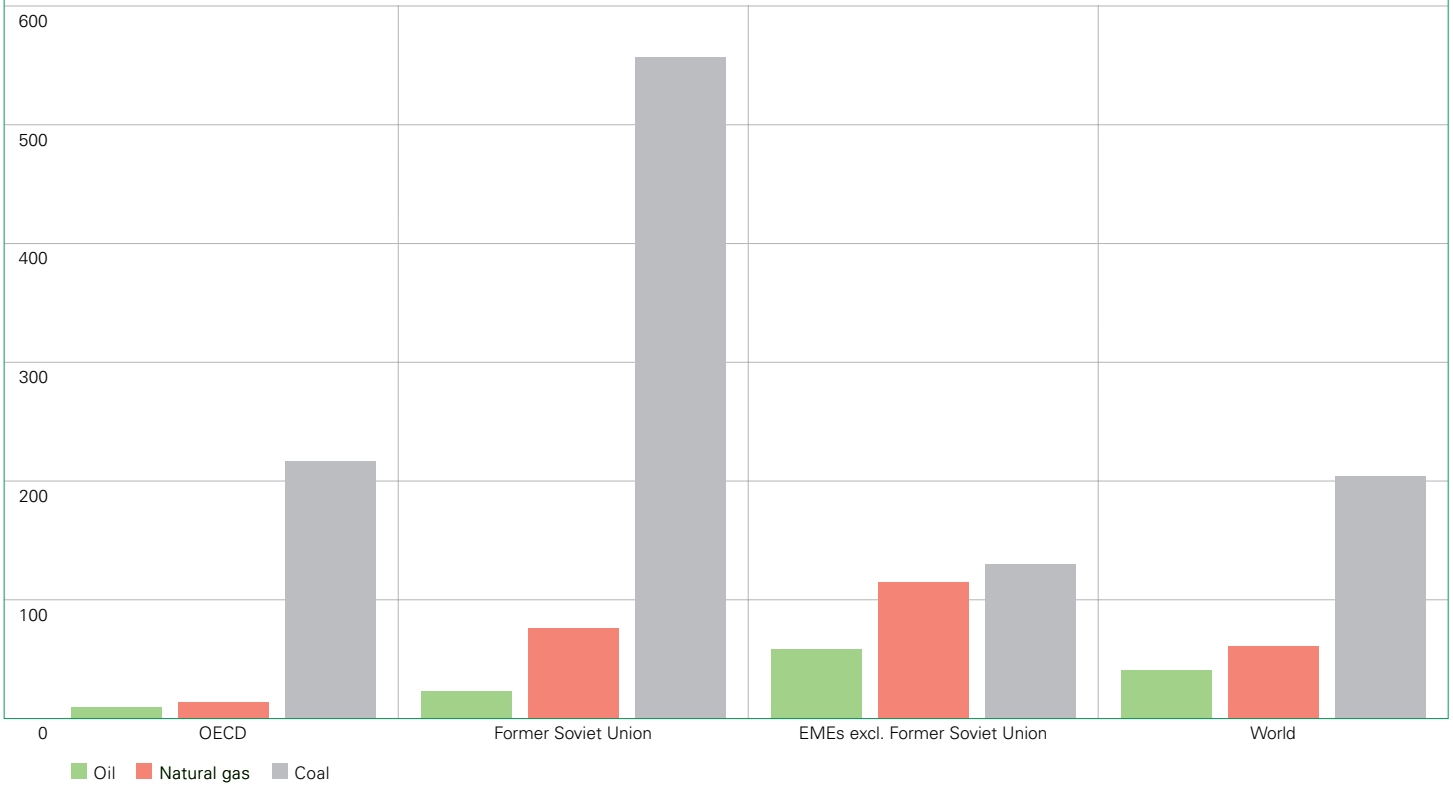


Oil remains the largest single source of energy in most parts of the world. The exceptions are the Former Soviet Union, where gas dominates and Asia Pacific where coal is the dominant fuel.

Primary energy

Fossil fuel R/P ratios at end 2002

Years



The world's reserves-to-production ratio for coal is around five times that for oil and more than three times that for natural gas. Coal's dominance in R/P ratio terms is particularly pronounced in the OECD and the Former Soviet Union.

Energy consumption per capita

Tonnes oil equivalent

